

Remarks

Claims 1, 3, and 18-25 were pending in the subject application. Applicants gratefully acknowledge the Examiner's withdrawal of the rejection under 35 USC §112, first paragraph, directed to lack of written description. By this Amendment, Applicants have amended the subject specification to correct inadvertent typographical errors contained therein. In addition, claim 1 has been amended, claims 3, 21, and 23 have been cancelled, and new claims 26-34 have been added. Support for the new claims and amendments can be found throughout the subject specification, including at page 5, lines 3-5, and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 1, 18-20, 22, and 24-34 are currently before the Examiner for consideration. Favorable consideration of the pending claims is respectfully requested.

Submitted herewith is a Request for Continued Examination (RCE) under 37 CFR §1.114 for the subject application. Also submitted herewith is a supplemental Information Disclosure Statement (IDS), accompanied by the form PTO/SB/08 and copies of the references listed therein. Applicants respectfully request that the references listed on the form PTO/SB/08 be considered and made of record in the subject application.

Claims 1, 3, and 18-25 are rejected under 35 USC §112, first paragraph, as non-enabled by the subject specification. The Examiner asserts that the subject specification does not enable the claimed method for all stem cells. Applicants respectfully submit that the claimed invention is fully enabled by the subject specification. However, in a sincere effort to advance prosecution of the subject application, Applicants have amended claim 1 to recite that the stem cells are hematopoietic stem cells (HSC). In addition, Applicants have added new claims 26-32 that recite that the stem cells are embryonic stem cells.

Applicants note that the Examiner acknowledges that the specification enables reduction of SHIP expression in embryonic stem cells. Applicants respectfully assert that the subject specification does enable RNA interference of SHIP expression in hematopoietic and embryonic stem cells *in vivo*, wherein the number of these stem cells is thereby increased. The subject specification, including the results and data disclosed therein, teaches reduction of SHIP expression

in hematopoietic stem cells and the concomitant increase in such stem cells. For example, Example 1 (at page 11) of the subject specification teaches that the population of hematopoietic stem cells is increased significantly in SHIP-deficient mice. The same result would be expected if, rather than SHIP-deficient animals, SHIP expression was inhibited (*e.g.*, via RNA interference) in normal SHIP-expressing animals. In addition, Applicants have previously provided evidence that inhibition of SHIP expression using RNA interference *in vivo* provided an increase in SHIP-expressing cells (*e.g.*, hematopoietic stem cells) in the test animals. The Examiner appears to acknowledge that SHIP expression can be inhibited in a cell *in vivo* using RNA interference and that the use of RNA interference to inhibit SHIP expression in a cell is enabled by the subject specification. Thus, it follows that a person of ordinary skill in the art, having the benefit of the teachings of the subject specification, would expect that RNA interference of SHIP expression *in vivo* in hematopoietic stem cells and embryonic stem cells would result in increased hematopoietic and embryonic stem cell numbers. Accordingly, Applicants respectfully assert that the claims are enabled by the subject specification. Reconsideration and withdrawal of the rejection under 35 USC § 112, first paragraph, is respectfully requested.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants' agreement with or acquiescence in the Examiner's position.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§ 1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



Doran R. Pace
Patent Attorney
Registration No. 38,261
Phone No.: 352-375-8100
Fax No.: 352-372-5800
Address: Saliwanchik, Lloyd & Saliwanchik
A Professional Association
P.O. Box 142950
Gainesville, FL 32614-2950

DRP/jil/mv

Attachments: Request for Continued Examination
Supplemental Information Disclosure Statement; Form PTO/SB/08; references